4G wireless scenarios

The "*Scenarios for the Evolution of the Wireless Industry*" report is a new approach by Research and Markets, responding to the current uncertainty over future demand. "Great uncertainties over future demand for services and the extent to which alternative technologies will displace existing cellular standards present major challenges to organisations across the wireless industry," it claims. "Single-line forecasts no longer provide the necessary insight. Organisations need to understand the implications of a number of feasible scenarios for the evolution of the wireless industry, which bring enormous threats and opportunities."

There is uncertainty in the wireless industry over the demand for future mobile services, heightened by slow take-up of early 3G services and compounded by the extent to which alternative technologies will supplement or displace existing cellular standards to satisfy that demand.

Cellular (eg. EDGE, WCDMA, HSDPA, CDMA2000), W-LAN (802.11b, a and g), broadband wireless access (eg. 802.16 WiMAX, 802.20) and the proprietary (eg. Flarion, iBurst, Vivato) systems are all vying for major roles in the wireless industry.

Single-line forecasting of the future of the wireless industry runs a risk of seriously underplaying the potential impact of many emerging trends.

This latest report presents a number of feasible scenarios for the evolution of the wireless industry, which have profound implications for network operators, equipment, handset vendors and many others.

Scenarios are quantified in terms of service revenues and usage (split by service type), network infrastructure revenues (split by technology type) and handset revenues.

The report also identifies the clear winners and losers in each scenario and the strategies that are needed to secure success.

Web: /www.researchandmarkets.com/reports/c3534

EPCOS works with InGaP

EPCOS Inc miniaturisation of passive electronic components for the CDMA 850 mobile radio standard with the PaiD (power amplifier with integrated duplexer) module measures only 8×5×1.5mm.

Conventional solutions for CDMA 850 mobile handsets are based on discrete designs that require power amplifier modules (PAs), SAW duplexers, SAW filters and coupling capacitors.

EPCOS has set itself the goal of integrating PAs and duplexers in LTCC modules and thus reducing space requirements significantly.

As well as saving board space, customers benefit from high cost efficiency, combined with improved electrical properties.

A combination of InGaP HBT PAs featurie outstanding temperature stability, with SAW duplexers and filters from EPCOS. The LTCC module has good electrical properties and makes significantly longer talk times possible.

Samples are available immediately. From mid-'05, PaiD modules will be offered for PCS band as well.

Web:www.usa.epcos.com/web

InGaP PAs for VX 7000

Anadigics Inc is shipping production volumes of InGaP power amplifiers to LG Electronics for the VX7000 CDMA handset with embedded digital camera. The AWT6135 InGaP HBT PA module provides selectable bias modes and a shutdown mode with low leakage current in a small 4mm x 4mm PA module to enable longer battery life in wireless handsets.
Bami Bastani, Anadigics' president and CEO said, "Our portfolio of advanced CDMA PA solutions enables our customers to overcome the challenges of integrating advanced multimedia capabilities without sacrificing battery life."
Latest news is that LG Electronics, is actively undertaking structural reform. Vice chairman Kim Ssang-su is reported as having a negative view on digital camera business: "Even if a project expansion has been announced, we have to review it if its profitability outlook is poor."
Underlying this shift is a recent rapid deterioration of profitability of the digital camera business. But LG is positively studying a plan to build a cellphone manufacturing plant in Pyongtaek, Gyeonggi Province during the first half of 2005 which calls for integrating its CDMA plant in Guro, Seoul and its GSM plant in Cheongju, North Chungcheong Province. LG Electronics envisages becoming the third-largest cellphone maker in the world by 2006, a year earlier than originally planned.

SiGe performance 'as if designed in silicon'

To meet growing demand in the wireless RF IC market for a capable, cost-effective design platform, Applied Wave Research Inc and TSMC Co Ltd have reached a joint agreement to develop and deliver a design platform for TSMC's 0.35-micron silicon germanium (SiGe) process. The platform will include AWR's Analog Office RFIC design software, a TSMC 0.35-micron SiGe process design kit based on open software standards, and an end-user full product support package.

TSMC operates a 300mm wafer fab, six 8" and one 5" wafer fab and has substantial commitments at joint-venture Vanguard and SSMC fabs and the TSMC wholly-owned subsidiary, WaferTech.

TSMC and AWR will develop a new set of process-calibrated and process-tuned device models for the TSMC 0.35-micron SiGe process. This will include the most advanced and accurate bipolar transistor high current models (HICUM) as well as a comprehensive set of accurately tuned spiral inductor models. XMOD Technologies, (Web:www.xmodtech.com) specialising in RF device modelling, will provide the geometry-scalable HICUM libraries.

These will enable analog and RFIC designers to develop next-generation, high-performance wireless ICs quickly and easily. They will also leverage the full capability of the advanced SiGe process, and with confidence that the circuits will perform 'as if designed in silicon.'

The newly developed models will be packaged as part of a complete personal development kits based on the AWR unified data model and other open software platforms.